ASSISTANT ENGINEER

DEFINITION:

Under close or general supervision of the City Engineer and Senior Civil Engineers, performs a variety of professional civil engineering work related to all aspects of municipal engineering function; performs related work as required.

CLASS CHARACTERISTICS:

Assistant Engineer is the journey level of the professional engineering series. Incumbents may be assigned specific projects or may act as part of a team effort on a larger project. Some latitude for independent judgment is possible within established guidelines. This class is distinguished from the Associate Engineer position, which is the full advanced journey level of the series, capable of performing complex and difficult project work along with supervision of engineering aide staff.

IMPORTANT AND ESSENTIAL JOB FUNCTIONS:

1. Design and detail structures, utility facilities, roadways, site improvements and various public works projects.

2. Oversee development of construction drawings for accuracy and conformance with design requirements.

3. Act as project engineer of construction projects of moderate difficulty.

4. Inspect the construction of engineered facilities for conformity with plans and specifications.

5. Direct the work of technical staff on specific projects.

6. Conduct studies and use computer programs to solve specific engineering problems.

7. Maintain accurate records and prepare clear and concise reports, correspondence and other written materials related to the work.

8. Prepare and review plans, specifications, bids, contracts, and reports.

9. Confer with other City staff and consultants to coordinate projects.

10. Prepare economic and environmental studies on proposed and existing facilities.

11. Perform traffic engineering related activities including preparation and/or review of striping and signage plans, traffic signal plans, etc.; review traffic complaints and reach sound

conclusions within established guidelines.

IMPORTANT AND ESSENTIAL JOB FUNCTIONS (Continued):

12. Review subdivision maps for accuracy and for conformity with approved tentative maps, subdivision map act, and City ordinances.

13. Provide flood zone information/determination to the public and business community.

14. Respond to citizens' complaints on drainage and flooding issues and assist in providing solutions to their problems.

MARGINAL/PERIPHERAL JOB FUNCTIONS:

1. Prepare labor, material and workday estimates for construction projects.

2. Estimate cost, materials and labor, and time requirements.

3. Compile and compute engineering data and statistics.

4. Review plans submitted by developers for conformance to design and technical standards.

5. Perform related work as required.

QUALIFICATIONS:

Knowledge of:

1. Civil engineering principles and practices with particular reference to public works projects.

2. Methods and materials used in the construction of public facilities.

3. Engineering mathematics through calculus.

4. Basic surveying, drafting and materials testing techniques.

5. Data processing principles as applied to the solution of engineering problems.

6. Sources of civil engineering and construction information.

7. Specification and estimate writing techniques.

8. Project management techniques.

9. Construction practices.

Assistant Engineer

Skill in:

1. Applying civil engineering principles to the solution of engineering problems.
2. Interpreting and preparing drawings, maps, graphs, specifications and compilation of numerical data.
3. Maintaining accurate records and preparing clear and concise reports.
4. Preparing engineering studies and evaluations.
5. Establishing and maintaining working relationships with those contacted in the course of the work.
6. Inspecting City or private development projects.
7. Evaluating operational activities and making recommendations for improvements.
8. Directing the work of technical staff on specific projects.

Ability to:

1. Quickly learn the policies and procedures pertaining to the work.
2. Manage multiple construction or plan checking projects.

JOB REQUIREMENTS:

1. Bachelor's degree in Civil Engineering from an accredited college or university, **and,** an Engineer-In-Training Certificate accepted by the State of California.
2. Two years of professional civil or related engineering experience.
3. Possession of a valid California Class C driver's license in compliance with adopted City driving standards.
4. Must have sufficient mobility to inspect construction projects in the field.
5. Must be willing to work out of doors in various weather conditions.

OTHER QUALIFICATIONS:

1. An advanced degree in an accredited civil engineering curriculum may be substituted for one year of the required experience.

OTHER QUALIFICATIONS (Continued):

2. Registration as a professional civil engineer issued by the State of California is desired, but not required.

MACHINES/TOOLS/EQUIPMENT UTILIZED:

1. Various engineering measuring tools and equipment
2. Automobile
3. Reports, forms, pencils and pens
4. Maps, plans, and blueprints
5. Computer monitor, keyboard and printer
6. Copy and Fax machines
7. Calculator
8. Telephone

PHYSICAL DEMANDS:

1. Mobility
2. Walking
3. Speaking/hearing
4. Driving
5. Seeing
6. Sitting/standing
7. Speed in meeting deadlines
8. Manual dexterity
9. Lifting up to 20 lbs.

ENVIRONMENTAL AND ATMOSPHERIC CONDITIONS:

Office Conditions:

1. Indoors: normal office conditions, 80% of the time
   Travel: varying conditions, 20% of the time
2. Noise level: conducive to office setting
3. Lighting: conducive to office setting
4. Flooring: low level carpeting
5. Ventilation: provided by central air conditioning
6. Dust: normal, indoor levels

Field Conditions:

1. Outdoors: varying weather conditions
2. Noise level: varying low to high equipment noise
3. Flooring: grass, dirt, rock, asphalt, etc.
4. Dust: normal outdoor, to high outdoor levels associated with construction activities
5. Hazards: Investigating/surveying developed and undeveloped sites under various stages of construction